Editorial by Elizabeth Hartney

This special issue of the journal is focused on neuroleadership, specifically in relation to health leadership. A somewhat nebulous term, neuroleadership refers to an emerging movement within the leadership field, which draws from recent developments in the technologies and findings of neuroscience, and attempts to apply them to the complex field of leadership. Given the vastly different levels of knowledge being represented by the component disciplines of neuroscience, psychology, and organizational leadership, this is clearly an ambitious goal, one which has been met with mixed reactions. To many of us, neuroscience provides a missing piece of the puzzle to understanding the struggles and successes of leaders within organizations; in contrast, others have posited that efforts to bridge the gulf between the microscopic world of neuroscience and the socio-cultural world of leadership in this manner is unrealistic. Yet, as authors and speakers are increasingly referencing neuroscientific concepts to support their interpretations of human behaviour, there appears to be an appetite for explorations of what neuroleadership can offer to our understanding of some of the most elusive aspects of how leaders influence organizational realities.

The scope of neuroleadership is potentially enormous, yet the field itself is still in its infancy. Further, the majority of specialists prefer to stay firmly rooted in their area of expertise, be that neuroscience or leadership. So, while the scope of what could be included in this special issue is large, we have included articles which reflect a clear focus on well-supported linkages between neuroscience and leadership. These articles are not representative of the field as a whole, but rather, provide a broad range of perspectives on neuroleadership, which we anticipate will be of direct relevance to the journal's readership.

David Rock, the originator of the term, "neuroleadership," and Director of the Neuroleadership Institute, along with his colleague, Jay Dixit, open this special issue with A Neuroscience-Based Approach to Changing Organizational Behaviour. The management of change within healthcare organizations is an everyday challenge to healthcare leaders, yet many of us struggle with initiating, carrying forward, and maintaining the organizational changes that are constantly demanded within healthcare, arising from developments in the field, shifting patient demographics, and the fluctuating political climate. Drawing on knowledge developed in the addiction field, the authors explain how awareness-raising alone is inadequate for effectively changing employees' behaviour in organizations. They suggest that what is needed instead is a leadership process which guides people through determining priorities for what to do differently, then teaching employees new habits or automatic behaviours, using the neuroscience-based processes of repetition and reward, and finally, developing support within the system to maintain these new ways of doing things. By understanding why managing change effectively requires us to apply knowledge of how employees can actualize change on a behavioural level, we can become more effective as leaders in enabling our healthcare teams to follow through in making our plans for change a reality.

Stress is the scourge of modern healthcare, and our responses to, and management of stress, are fundamental to our effectiveness as healthcare leaders. Furthermore, stress among employees of the health system are reaching crisis levels in some organizations, while the role of stress in the development and exacerbation of the majority of mental and physical health problems is well known. Clearly, change is needed to shift the healthcare system from one that is driven by this potentially harmful force, to one that functions more effectively, allowing our healthcare environments to function as a safe haven for healing. To this end, Elizabeth Hartney introduces a three step model of stress management for healthcare leaders, based on neuroscientific evidence. The model first addresses the management of stress in the self, then
outlines how the leader can apply neuroscientific evidence-based findings to creating a supportive environment for healthcare employees, patients, and families, and finally, emphasises the need to revolutionize the healthcare system by advocating for change within the culture of healthcare organizations to be less stressful for everyone. By applying the scientifically supported strategies of stress management at the individual, team, and systems levels, transformation of the healthcare system from a stressful environment into a healing and restorative one becomes a real possibility.

Neuroscientific research has resulted in determining some specific strategies that can be used by individual healthcare leaders to enhance their effectiveness. In the following two articles, two such approaches are explored in detail. Paul Mohapel provides a compelling case for healthcare leaders to practice mindfulness, in order to sustain focus and filter out unwarranted distractions. He explains how our brains are actually compromised through the multi-tasking demanded of us in leadership roles, which undermines our ability to sustain the focus required to lead effectively. In contrast, engaging in mindfulness enables us to access higher cognitive processes, and thereby lead more effectively. While at one time, this may have seemed far-fetched, few of us working in the healthcare sector have missed the significant impact that the incorporation of mindfulness has had on challenging patient populations, such as those struggling with addictions and chronic pain. The article explains that mindfulness can also benefit leaders in attaining ideal mental states. By better understanding the neuroscientific mechanisms by which mindfulness and focus can benefit our functioning as healthcare leaders, we are finally justified in laying to rest the temptation to do everything at once, reducing our stress levels in the process.

Next, Paul Swingle and Elizabeth Hartney, both board certified in biofeedback and neurofeedback, illustrate how neurotherapy can be used to further optimize the performance of healthcare leaders. By mapping the brain using EEG, then using neurofeedback, a type of biofeedback using computerized classical and operant conditioning methodologies, key areas of the brain can be trained to function more effectively, thereby improving leadership abilities. Healthcare leaders can utilize these technological advances to assist in overcoming the impact of workplace trauma on their leadership functioning, which frequently occurs in healthcare leaders. Neurotherapy can then be used to rectify leaders’ inherent neurological weaknesses, such as the attentional problems discussed in the previous article, while maximizing their neurological strengths, some of which may not be “neurotypical,” and do not necessarily occur with great frequency in the general population. Although it is not a “magic bullet,” neurotherapy is an underutilized tool that can add a new dimension of learning and self-change to leadership development that goes beyond traditional methodologies such as study, coaching, and mentoring. While many leaders might never consider using a brain-based intervention such as neurofeedback for themselves, understanding the neuroscience behind neurotherapy provides another option for when we want to consider an alternative to the usual talk-based approaches to self-development.

In the current global political climate, no discussion of neuroleadership would be complete without considering the neuroscientific roots of dysfunctional leadership, and their expression and consequences on teams and organizational outcomes. Informed by neurocognitive and personality studies, Tracey Nigro explores the challenging terrain of dysfunctional and damaging leadership within healthcare organizations from a pragmatic perspective. By applying the LEADS framework, she alerts us to manifestations of destructive "shadow traits" in each of the domains. She then outlines valuable primary, secondary, and tertiary tactics we can use to limit the damage that can be wrought by those who rise to positions of power, while lacking the core values of integrity, compassion and accountability that are essential to the ethical
functioning of healthcare organizations. Knowing that there are strategies that can be used to avoid and repair the harm that can be done by toxic leaders is helpful, as this is a problem that can occur all too often in healthcare.

In our final article, Chelsie Kadgien and Naila Kuhlmann provide a critical counterpoint to the concept of neuroleadership, with important considerations to bear in mind as we immerse ourselves in neuroscientific approaches in our quest to understand leadership. The authors caution us against romanticizing neuroleadership, and remind us of the limitations of applying reductionist approaches to the complex field of healthcare. While the new field of neuroleadership is exciting, we should remain sceptical of enthusiasts who assert implausible "neuroscientific" conclusions, sometimes without the benefit of formal education or expertise in the component disciplines of neuroscience, psychology, and leadership; such claims will ultimately weaken the field.

In conclusion, the special issue spans a range of topics of interest to healthcare leaders, which have practical value in their applicability to the everyday challenges we face. The articles give a fresh perspective of strategies we might consider using, to get our work done most effectively. They give us new ideas for change management, stress management, staying focused, developing our own brains to function at their best, supporting our teams, advocating for systems change, addressing toxic leadership, and reflecting on the neuroscientific claims which are finding their way into the wider social discourse.

I thank all of the authors for their insightful contributions to this special issue, and hope that the readers will find them to be of value.